

Counting 15 Dots

Reporting Category Number and Number Sense

Topics Identifying written numerals from 0 through 15 represented in random order
Writing a numeral that corresponds to a set of 15 or fewer concrete objects
Constructing a set of objects that corresponds to a given numeral, including an empty set

Materials

- Drawing paper, prefolded into five rows
- Numeral cards showing numerals from 0 to 15 and the corresponding numbers of objects
- Bingo chips (magnetic) or other counters
- Magnetic wand (optional)

Vocabulary

set, empty set, numeral, number, zero (0), one (1), two (2), three (3), four (4), five (5), six (6), seven (7), eight (8), nine (9), ten (10), eleven (11), twelve (12), thirteen (13), fourteen (14), fifteen (15), more, fewer, same

Student/Teacher Actions (what students and teachers should be doing to facilitate learning)

1. *Initiating Activity:* Share with the students an illustrated story featuring the counting of dots. As each illustration is shown, have the class count the dots aloud.
2. Give each student a large piece of paper prefolded into five rows.
3. Randomly show numeral cards for the numerals from 0 to 15. Each card should display the numeral and the corresponding number of objects.
4. Have each student draw the correct number of dots on the first row of the paper when the numeral is shown and called out. For example, when the numeral 5 is shown and called out, students should draw five dots.
5. Have students place a bingo chip or other counter over each dot, counting as they go.
6. After they finish counting, have the students remove their bingo chips or other counters from the paper.
7. Call the next number, and have the students repeat the activity until the five rows on the front and the five rows on the back of their paper are filled with dots.

8. Have students write the correct numeral by each row of dots, referring to the numeral cards used in step 3.
9. Have students point to the first row on the first side of the paper (the first row where they drew dots in step 4). Ask them to call out the numeral they wrote there. Then, have them identify the rows on that side of the paper that have fewer dots and the rows that have more dots. Repeat this step, using the other side of the paper.
10. Ask each student to find the row that is the same on his/her neighbor's paper.

Assessment

- **Questions**
 - Show a numeral card. Have students create a set to represent that numeral. "How do you know your set represents this numeral?"
 - Show students a set of objects. "What numeral represents this set? How can you show this numeral another way?"
- **Journal/Writing Prompts**
 - "Pick a number 1 to 15, and write or draw everything you know about this number."
 - Give students a number. "Show this number with pictures."
- **Other**
 - Call out a number, and have students draw that number of dots on their paper. Watch carefully as students are drawing their dots, and then monitor them as they are placing chips on each dot.
 - Listen to each student count his/her set of dots aloud.

Extensions and Connections (for all students)

- Have students create their own dot stories. Distribute a certain number of peel-off dot stickers to each student, and have each student draw a picture to include the dots. Collect the illustrations, and put them together as a class book.
- After students have experienced many different counting books, have them create their own counting books, using such items as glue, scissors, construction paper, markers, and pencils. Put finished books in the book center to be read at other times during the day.
- Play Concentration with Dominoes and Numeral Cards. The first student to take a turn flips over one numeral card and one domino. If the numeral card matches the number of pips on the domino, the student keeps the card and domino as a match. If the numeral card and the number of pips on the domino do not match, the student turns the card and domino back over, and the next student takes a turn. Play continues until all of the cards and dominoes have been matched.

Strategies for Differentiation

- Lead students in creating a picture chart of classroom items to count and record. The chart might include items such as desks, chairs, flags, computers, trash cans, and pencil sharpeners.
- For students requiring additional support with mobility and performance of the tasks (counting, patterning, grouping, recording, writing), assign a peer buddy or classroom aide

to assist with any switch-activated devices and to give visual or occupational support as needed.